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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/089,839 | 08/06/2002 | Henry J Riddoch | 1085-043-PWH | 5269 |
| 21034 | 7590 | 06/02/2004 | | |
| IPSOLON LLP 805 SW BROADWAY, #2740 PORTLAND, OR 97205 | | | | |
| EXAMINER TYLER, CHERYL JACKSON | | | | |
| ART UNIT | | PAPER NUMBER | | |
| 3746 | | | | |

DATE MAILED: 06/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/089,839

Applicant(s)

RIDDOCH, HENRY J

Examiner

Cheryl J. Tyler

Art Unit

3746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 March 2004.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 33,34,36-44 and 46-63 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☒ Claim(s) 33,34,36-44,46-49 and 51-63 is/are allowed.
6) ☒ Claim(s) 50 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 15 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

FINAL ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 50 is rejected under 35 U.S.C. 103(a) as being unpatentable over Harmsen et al. (Re. 34,456) in view of Rupp et al. (6,175,171). Harmsen et al. teach an axial fan having a housing 1 manufactured from plastic (see column 2, lines 51-53) and incorporating a motor wherein the motor includes a stator assembly 6 having a base plate (generally indicated as 32 in Figure 6); a winding assembly (generally indicated as 29 in Figure 6) affixed to the stator assembly base; and circuitry 20 associated with the motor.

While Harmsen et al. teach a general motor for an axial fan, they do not explicitly teach orienting the circuit board to better dissipate heat and thus, improve the cooling capacity of the motor. Rupp et al. teach such a motor. The Rupp et al. motor includes a base body 13 (corresponding to the claimed stator assembly) "comprised of a favorably heat conductive material, e.g. aluminum" (column 2, lines 14-15). Rupp et al. further teach a support 132 (corresponding to the claimed stator base assembly) "embodied as being of one piece inside the base body" (column 2, lines 18-19); and a printed circuit board 19 "disposed on the side of the support 132 of the base body 13 oriented away from the rotor" (column 2, lines 33-35). As illustrated in Figure 1, the

support 132 is disposed between the printed circuit board 19 and a winding assembly (which Rupp et al. teach is comprised of a number of multipole stator laminations 14 with the windings 15), and has a side wall depending away from the winding assembly. The side wall being within an air flow and comprising part of a heat transfer path to dissipate heat away from the motor, and further defining a recess within which the printed circuit board is located. Rupp et al. teach a number of power transistors 20, which are disposed on the printed circuit board so that "with their cooling surfaces 21, they lie flat against the radial surface of the support 132 oriented toward the printed circuit board" (column 2, line 37-39). As illustrated in Figure 1, there is a covering cap 23 (corresponding to the claimed cover), wherein the circuit board is located between the support 132 and the cap 23. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the Rupp et al. motor, in the Harmsen et al. axial fan, in order to remove dissipated heat from the electronics in an improved and accelerated manner (see Rupp et al. column 1, lines 29-30).

Allowable Subject Matter

3. Claims 33-34, 36-44, 46-49, and 51-63 are allowed.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact Information

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cheryl J. Tyler whose telephone number is 703-306-2772. The examiner can normally be reached on Monday-Thursday, 6:00 - 10:30 am.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Justine R. Yu can be reached on 703-308-2675. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Cheryl J. Tyler
Primary Examiner
Art Unit 3746

CJT